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EXAMINER

AVERY, BRIDGET D

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JOSEPH G. SUPINA and STEFAN P. POTOTSCHNIK

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Appeal 2008-2114  
Application 10/605,315  
Technology Center 3600

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Decided: January 26, 2009

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*Before:* WILLIAM F. PATE, III, JENNIFER D. BAHR, and  
STEVEN D.A. MCCARTHY, *Administrative Patent Judges.*

BAHR, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Joseph G. Supina and Stefan P. Pototschnik (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1-11, which are all of the claims pending in the application. We have jurisdiction over this appeal under 35 U.S.C. § 6 (2002).

*The Invention*

Appellants' claimed invention is directed to a hybrid electric vehicle powertrain including an internal combustion engine, an electric motor, an electric generator, and a storage battery, wherein a power delivery path is established as the engine drives the generator. The generator charges the battery as the motor is supplied with power from the battery during reverse drive. Specification, para. 10. Claim 11, reproduced below, is further illustrative of the claimed subject matter.

11. A hybrid-electric wheeled vehicle powertrain comprising an internal combustion engine, an electric motor, an electric generator and a battery;

the electric motor, the electric generator and the battery being electrically connected to form an electrical power source;

a geared transmission defining power flow paths to vehicle traction wheels, the geared transmission having a first gear element connected to the engine and a second gear element connected drivably to the motor;

a rotor for the generator being connected to a third element of the geared transmission;

means for establishing a driving connection between the engine and the generator through the gear elements during operation of the powertrain in a reverse driving power delivery mode, the electric motor being drivably connected to the vehicle traction wheels; and

means for isolating a torque flow path between the motor and the vehicle traction wheels from a torque flow path between the engine and the generator.

*The Rejection*

Appellants seek review of the Examiner's rejection of claims 1-11 under 35 U.S.C. § 103(a) as being unpatentable over Tabata (US 5,887,670, issued March 30, 1999) and Taniguchi (US 5,846,155, issued December 8, 1998)

OPINION

Each of Appellants' independent claims 1, 2, and 11 explicitly requires an electric motor and an electric generator. Appellants argue that neither Tabata nor Taniguchi teaches a powertrain that has the two distinct elements of an electric motor and an electric generator. Appeal Br. 10-11. Specifically, Appellants urge that the Examiner errs in attempting to read the two distinct claim elements of a motor and a generator on a single electric machine (motor/generator 14) of Tabata or a single electric machine (motor-generator 5) of Taniguchi to support the conclusion of obviousness. Appeal Br. 11. For the reasons that follow, we agree with Appellants.

All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970). Moreover, in reading claim language on prior art in making patentability determinations, the Examiner cannot rely on a single element to satisfy two claim elements. *See, e.g., In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (claim requiring two separate means cannot be anticipated by structure that only contains two means using one element twice).

Each of Appellants' claims explicitly and unambiguously requires two distinct electric elements, namely, an electric motor and an electric generator. As noted above, the provision of an electric generator in addition

to, and distinct from, the electric motor in the powertrain of Appellants' invention permits the engine to drive the generator to charge the battery as the motor is supplied with power from the battery during reverse drive. Specification, para. 10.

Tabata, on the other hand, discloses a single motor/generator 14 "which functions as an electric motor operated with an electric energy, and an electric generator." Tabata, col. 13, 17-19. Tabata's motor/generator 14 is depicted with only a single rotor 14r and is described as operating in one of a "DRIVE" state, a "CHARGING" state, and a "NON-LOAD" state. Tabata, col. 18, l. 67 to col. 19, l. 13. We find nothing in Tabata, and the Examiner does not point to any teaching in Tabata, to indicate or suggest that the motor/generator 14 comprises a motor and a generator distinct from the motor. Nor does the Examiner specifically even allege that Tabata's motor/generator 14 comprises a motor and a generator distinct from the motor. Rather, the Examiner simply makes the bald assertion that Appellants' claims "do not restrict the application of a combined motor/generator against his claims." Answer 6. To the extent that the Examiner's position is that Appellants' claims do not require a motor and a generator distinct from the motor, the Examiner errs in construing the claim language, for the reasons discussed above.

The Examiner provides no other reasoning having rational underpinnings explaining why it might have been obvious to substitute a separate motor and generator for the combination disclosed in Tabata, and thus fails to support the legal conclusion of obviousness. *See KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. 398, \_\_\_, 127 S. Ct. 1727, 1741 (2007) (there must be some articulated reasoning with some rational underpinning to support

the legal conclusion of obviousness). The Examiner does not rely on Taniguchi for any teaching directed to the provision of a separate motor and generator. Taniguchi, like Tabata, discloses a motor-generator 5 that acts as a motor at some times and as a generator at other times (col. 12, ll. 36-38), and thus cannot make up for the deficiency of Tabata discussed above.

### CONCLUSIONS OF LAW

For the reasons discussed above, the Examiner errs in attempting to read the two distinct claim elements of a motor and a generator on the motor/generator 14 of Tabata. In so doing, the Examiner errs in concluding that the subject matter of claims 1-11 would have been obvious.

### DECISION

The Examiner's decision is

**REVERSED**

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